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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,333	01/30/2004	Young-Hoon Yoo	8054-34 (LW9064US/HJ)	6528

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EXAMINER	
DUDEK, JAMES A	

ART UNIT	PAPER NUMBER
2871	

MAIL DATE	DELIVERY MODE
12/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/768,333	YOO ET AL.	
	Examiner	Art Unit	
	Toan Ton	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *70-97* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *98* is/are allowed.

6)☒ Claim(s) *70-90 and 93-95* is/are rejected.

7)☒ Claim(s) *91,92,96 and 97* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 70-90 and 93-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno (US 4600273).

Ohno discloses a liquid crystal display device comprising (see at least Figure : a first substrate; a common electrode (e.g., 104) formed over the first substrate; a second substrate disposed opposite the first substrate; and a common voltage applying member that applies a common voltage to the common electrode and that maintains a cell gap between the first substrate and the second substrate, the common voltage-applying member comprising an insulator (e.g., 123) and a conductor (e.g., 124/125) formed over the insulator, wherein the common voltage applying member is disposed between a first peripheral area of the first substrate and a second peripheral area of the second substrate, the first and second peripheral areas being outside display areas of the first and second substrates

Ohno discloses the liquid crystal display device comprising a liquid crystal layer (e.g., 102) formed between the first substrate and the second substrate.

The limitation not disclosed by Ohno is pixel electrodes formed over the second substrate and the conductor insulated from the pixel electrodes.

The use of an active matrix LCD device comprising pixel electrodes (disposed on a lower/second substrate and in displaying regions) and switching elements such as thin film transistors (TFTs) individually control the pixel electrodes for achieving advantages such as cross-talk reduction. The active matrix LCD-substrate commonly comprises TFTs (comprising gate, source and drain electrodes) formed on a substrate, a planarizing layer formed on the substrate, pixel electrodes formed on the substrate and made contact with the drain electrode. The conductor (124/125) is disposed within binder (103) and disposed in non-displaying regions, and insulated from the pixel electrodes (disposed on display regions). Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to employ an active matrix LCD device comprising pixel electrodes and switching elements such as thin film transistors (TFTs) individually control the pixel electrodes for achieving advantages such as cross-talk reduction.

The use of RBG color filters is common and known in the art for achieving advantages such as a color display device. Therefore, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to employ color filters for achieving advantages such as a color display device. The use of a black matrix commonly disposed in the openings of the color filters is also common and known in the art for achieving advantages such as good contrast. Therefore, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to employ the black matrix for achieving advantages such as good contrast.

It is known and a common goal in the art to minimize components/manufacturing steps accomplished by eliminating extra layers/steps for advantages such as cost-reduction. Forming

elements such as the electrodes being the same material with the conductor, the color filter being the same material with the insulator would yield advantages such as cost-reduction, as it is known and a common goal in the art. Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to form the various elements in the display device being the same material for yielding advantages such as cost-reduction, as it is known and a common goal in the art.

Forming the color filter on either substrate appears simply as at least obvious variations (i.e., not patentably distinct) to one another. Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to form the color filter on either substrate appears simply as at least obvious variations (i.e., not patentably distinct) to one another, for producing a color display device.

The use of spacers is common and known in the art for achieving advantages such as maintaining a constant gap between the substrates. Tani discloses the color filters disposed between the substrates in the manner of the spacing structure. Further, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to form the color filters with the same material as the insulator for advantages such as cost-reduction, as it is known and a common goal in the art, while maintaining the constant gap between the substrates.

It has been held that making things separable would have been at least obvious to one of ordinary skill in the art. See at least In re Dulberg, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). Thus, it would have been at least obvious to one of ordinary skill in the art at the time invention was made to employ the common electrode and the conductor separable, as at

least functional equivalent (i.e., not patentably distinct) to the common electrode and the conductor being the same element.

Allowable Subject Matter

2. Claims 91-92 and 96-97 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not anticipate nor render obvious to one ordinary skilled in the art a liquid crystal display device comprising a combination of various elements as claimed, more specifically, 'the common voltage-applying member comprising an insulator and a conductor formed over the insulator, the member disposed between a first peripheral area of the first substrate and a second peripheral of the second substrate, and the black matrix formed over the common electrode and the conductor contacts the common electrode through an opening in the black matrix or a concave-convex portion of the conductor is in contact with a concavo-convex portion of the common electrode.

Claim 98 is allowed. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not anticipate nor render obvious to one ordinary skilled in the art a liquid crystal display device comprising a combination of various elements as claimed, more specifically, 'the common voltage-applying member comprising an insulator and a conductor formed over the insulator, a part of the conductor is sandwiched between the insulator and the common electrode, and a black matrix formed over the common

electrode and the conductor contacts the common electrode through an opening in the black matrix'.

Response to Arguments

3. Applicant's arguments filed 09/27/07 have been fully considered but they are not persuasive.

The use of an active matrix LCD device comprising pixel electrodes (disposed on a lower/second substrate and in displaying regions) and switching elements such as thin film transistors (TFTs) individually control the pixel electrodes for achieving advantages such as cross-talk reduction. The active matrix LCD-substrate commonly comprises TFTs (comprising gate, source and drain electrodes) formed on a substrate, a planarizing layer formed on the substrate, pixel electrodes formed on the substrate and made contact with the drain electrode. The conductor (124/125) is disposed within binder (103) and disposed in non-displaying regions, and insulated from the pixel electrodes (disposed on display regions). Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to employ an active matrix LCD device comprising pixel electrodes and switching elements such as thin film transistors (TFTs) individually control the pixel electrodes for achieving advantages such as cross-talk reduction.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 6, 2007

TOAN TON
PRIMARY PATENT EXAMINER